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(54) Method and device for the detection of counterfeit documents and banknotes

(57) This invention relates to a method and the relevant device used to implement such a method, for the identification of documents and banknotes marked with OVI™ (Optical Variable Inks).

The above-mentioned device is apt to:

• generate a white light ray (full spectrum) between 5,000° and 7,000°K, with a light intensity of at least 30,000 mcd;

• polarize that white light ray through a first polarizing filter (3), and send the polarized ray (4) onto an area (5) to be assessed;

• filter the ray (6) reflected by the area (5) to be assessed by means of a second polarizing filter (7), in phase consistency with the first polarizing filter (3) and getting a first signal (s_a) by measuring its luminous intensity;

• filter the ray (6) reflected by the area (5) to be assessed by means of a third polarizing filter (8), in anti-phase with the first polarizing filter (3), and getting a second signal (s_b) by measuring its luminous intensity;

• measure the difference Δ between these two signals;

• compare the calculated value Δ to a reference value Δ_r previously measured on genuine documents and banknotes, providing a signal depending on the genuineness or not of the assessed document or banknote.

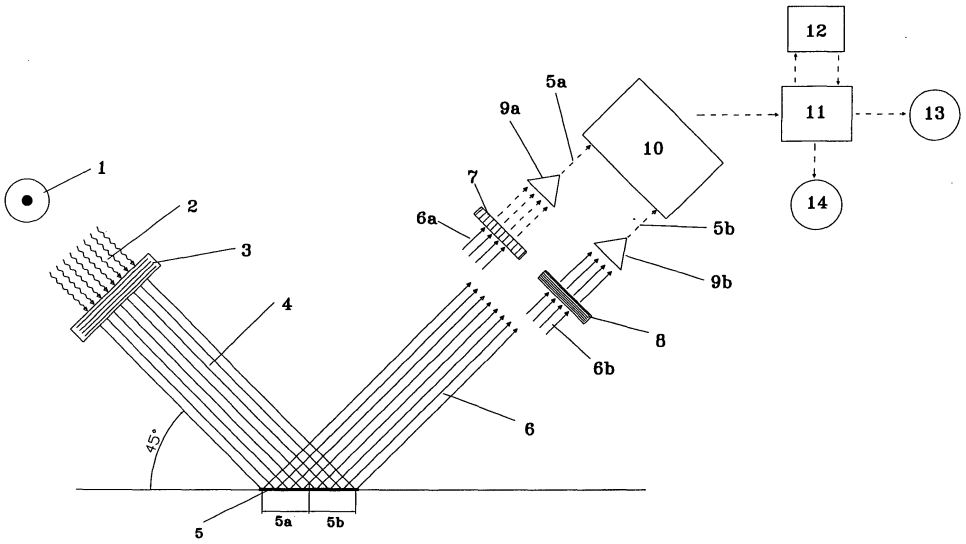

Fig. 2

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EUROPEAN SEARCH REPORT

Application Number
EP 06 01 5564

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2004/013817 A (GIESECKE & DEVRIENT GMBH [DE]; WUNDERER BERND [DE]; NOEMMER FRANZ [DE]) 12 February 2004 (2004-02-12) * page 4, line 1 - line 9 * * page 7, line 7 - line 24 * * page 17, line 10 - line 14 * * page 31, line 16 - line 29 * * page 31, line 16 - line 29 *	1-11	INV. G07D7/12
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X	GB 1 151 271 A (AIKEN IND INC [US]) 7 May 1969 (1969-05-07) * page 4, line 28 - line 67; figures 4,8 *	1	
A	COOMBS P G ET AL: "IMPROVED VERIFICATION METHODS FOR OVITM SECURITY INK" PROCEEDINGS OF THE SPIE, SPIE, BELLINGHAM, VA, US, vol. 3973, 2000, pages 296-303, XP000981521 ISSN: 0277-786X * the whole document *	1	

TECHNICAL FIELDS SEARCHED (IPC)
G07D
G01N
G01J

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	6 September 2007	Lindholm, Anna-Maria

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
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EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 06 01 5564

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82